WIRELESS CONSUMERS ALLIANCE INC.

EX PARTE OR LATE FILED

January 13, 1999

Ms. Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
12th Street Lobby, TW-A325
Washington, D.C. 20554

Re: Ex Parte Presentation
CC Docket No. 94-102

Dear Ms. Salas:

On November 9, 1998, Motorola filed a notice of *ex parte* contact which included a handout ("Handout") given to members of the Wireless Telecommunications Bureau and the Office of Engineering and Technology on November 6. The Handout reflects a basic misunderstanding of some aspects the "Strongest Signal" rule change proposed by the Ad Hoc Alliance for Public Access to 911 ("Alliance"), which is now pending before the Commission. We disagree with some of the statements and conclusions set forth in the Handout and this letter is for the purpose of clarifying and correcting the record. We have organized our response to the page numbers of the Handout as follows:

Page 2 Contains an outline of a discussion which presumes that Strongest Signal rule will require the handset to be modified to "poll" all signaling frequencies. Motorola concludes that "software changes needed in the handset to poll for [S]trongest [S]ignal are not trivial and have not been standardized by TIA."

"Polling" is a process involving interaction between the handset and the cellular system. There is no polling in the current channel selection process and *no polling is proposed as part of Strongest Signal*. As specified by OET-53 and TIA/EIA-553, the handset passively measures the Received Signal Strength on each of the control channels and selects the channel with the strongest signal. Strongest Signal does not change this process. Strongest Signal simply proposes to have the handset examine the signal strength (passively) on all 42 forward control channels (instead of just 21) when a call is placed to 911. The handset already performs this function and no new "standard" is required.

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The conclusion reached by Motorola is "[f]rom the user's perspective, it will take longer to place a 9-1-1 call." In fact, the additional time necessary for the handset using Strongest Signal to examine the additional 21 forward control channels is less than 50 milliseconds. We doubt that such time frame is perceivable by the user.

Page 3 Motorola proposes an alternative solution to the problem addressed by Strongest Signal. The Motorola solution would measure the signal strength of the uplink from the handset. To perform a function of this complexity would require that both cellular systems (A&B) be interconnected at the cell site level and in constant communication with each other to cooperatively measure the handset signal strength and come up with a usable channel assignment. This represents a dramatic and fundamental change to the operation of the cellular networks and would take years to implement at substantial expense.

One of the virtues of the Strongest Signal proposal is that it avoids any operational change to the network and uses the existing process to solve a critical problem at little expense. The handset has always independently selected the control channel to use when placing a call. We see no benefit in replacing a proven and existing process with the complex and far reaching system change suggested by Motorola.

Page 4 Motorola recites its understanding concerning the objections of the 9-1-1 administrators to Strongest Signal. The first item on the page relates to the so called "adequate signal" situation. The Alliance has already responded to this concern by modifying its proposal to add a -80 dBm threshold before the Strongest Signal selection process. The Commission requested public comment on this change in *Public Notice*, DA 98-1936 (Sep. 22, 1998). We are unaware of any comments filed by Motorola in response to this Notice.

The next item is predicated on the assumption that a larger (more powerful) cell will always provide the strongest signal to a user who is closer to a smaller (less powerful) cell. This ignores the fundamental fact that signal strength at the users location is a function of power *and proximity*. As a general proposition, the closest cell site will always provide the "strongest signal" to the handset. This fact enhances the ability under Phase 1 to locate the caller.

The third item assumes early deployment of location technology by a single carrier in a market which results in consumers purchasing that service who would rather not switch carriers when calling 911, even if the channel provided by the user's carrier was weak, inadequate or resulted in "lock in" where no voice communication was possible. We think that this is a far-fetched set of assumptions, however, the Alliance suggested that an "air bag" switch could be used to give the consumer the choice of not using Strongest Signal. This all becomes moot by October 1, 2001 when the Commission's mandate that all wireless carriers provide Phase II services becomes effective.

Finally, the last point reflects Motorola's confusion concerning the switching of wireless 9-1-1 calls to the PSAP. A surge of 9-1-1 calls from a cell are first choked off at the cell level. The calls that are passed are sent to the 9-1-1 wireline tandem and again choked off when the volume exceeds the capacity of the operators to handle the calls. There is nothing in this process which would redirect calls to an idle PSAP. There is no way Strongest Signal would result in "one PSAP [being] overwhelmed with calls while other PSAPs are underutilized."

Page 5 Motorola repeats its earlier assumption (apparently based on its misconception concerning "polling") that there will be a significant delay imposed by Strongest Signal. The additional time necessary to measure 42 channels instead of 21 channels is less than 50 milliseconds. A time so short it cannot be perceived by the user.

Page 6 Motorola states that the signal strength of the threshold proposed by the Alliance should be determined by standards bodies. As pointed out above, the Commission requested public comment on this proposal and Motorola did not respond. The -80dBm threshold suggested by Trott is based on the signal level used within the cellular system to determine when to hand off a call from one cell to another. No one took serious issue with -80dBm and we suggest that the Commission adopt this threshold subject to revision at a later date.

Page 7 is a summary of points which we have already discussed above.

Page 8 Sets forth Motorola's proposal that users be educated about how to change their cellular phones from the "only" setting to the "preferred" selection. We are in favor of consumer education. In WEIAD 6, CTIA agreed to ask its members to do just that and to encourage manufactures to deliver cellular telephones set to the "preferred" mode. The Alliance has since filed a copy of the AirTouch advice to its customers on this subject. (AirTimes, Third Quarter 1998). AirTouch suggests that in an emergency situation, if the signal from its system is weak, the user reprogram the handset to the other side to make the emergency call. AirTouch recommends that, after the emergency call is completed, the handset be programmed back to use only AirTouch to avoid "interference, static, crosstalk, or even dropped calls." This is obviously not a practical solution and hardly a substitute for Strongest Signal.

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On July 26, 1996, in its Further Notice of Proposed Rulemaking, the Commission asked for comments concerning the Strongest Signal proposal. Specifically, the Commission stated "[i]f a commenter believes that the [Strongest Signal] proposal is technically infeasible, it should provide its reasons in detail, with supporting engineering analyses." (Page 71, paragraph 144). It is respectfully submitted that had there been any bona fide objections to Strongest Signal they would have been stated and supported by engineering studies within the comment period set forth by the Commission. The only engineering studies filed with the Commission have been filed by

the Alliance in support of Strongest Signal. The real basis for the objections to Strongest Signal from the wireless industry and their supporters is the wireless industry does not want to handle emergency calls -- especially the emergency calls from users who are not their customers. This self interest must give way to the public interest in having emergency calls answered over the best channel of communication available.

Pursuant to Section 1.1206 of the Commission's Rules, an original and one copy of this letter is being filed with your office. If you have any questions concerning this submission, please contact the undersigned.

Sincerely,

Carl Hilliard

cc: Wireless Telecommunications Bureau
Ms. Nancy Boocker, Deputy Chief, Policy Division
Ms. Won Kim, Attorney, Policy Division
Mr. Marty Liebman, Engineer, Policy Division
Mr. Ron Netro, Senior Engineer, Policy Division

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